

METHOD AND APPARATUS FOR FEEDING AND SCANNING OVER-SIZED MEDIA SHEETS

ABSTRACT OF THE DISCLOSURE

A combination automatic document feeder and scanner operates so as to detect automatically an over-sized sheet of media. A linear image sensor detects motion of the oversized document as it is being fed into the scanner in a portrait orientation. A control algorithm responsive to the image sensor functions so those first and second portions of the over-sized sheet are successively registered over the transparent platen of the scanner and scanned. The resulting digital images of the first and second portions of the over-sized sheet are digitally stitched together using a control algorithm that causes 1) a front portion of the oversized document to be advanced a sufficient distance in a forward direction to place the front portion inside the scanning area of the line scanner but not a sufficient distance to place the rear portion of the oversized document inside the scanning area of the line scanner; 2) the line scanner to move in a perpendicular direction to the oversized document to capture indicia information disposed on the front portion of the oversized document; 3) the line scanner to move to a target area below the front portion of the oversized document for capturing a line of indicia information disposed on the front portion of the oversized document; 4) the front portion of the oversized document to advance in a direction perpendicular to the motion of the line scanner in a series of predetermined exposure intervals to determine the distance the oversized document traveled into the scanning area of the line scanner; 5) the line scanner to move in a perpendicular direction to the oversized document to capture indicia information disposed on the rear portion of the oversized document; 6) the front portion indicia information to be combined with the rear portion indicia information without any substantial discontinuity between the two portions; and 7) a complete image of the over-sized sheet to be stored in a memory, faxed or printed.